



UNIVERSITY OF  
GOTHENBURG

# DEMOCRATIC CONSOLIDATION IN SUB-SAHARAN AFRICA

Can the variation be attributed to the level of corruption at early  
stages of democratization?

**NICKI KHORRAM-MANESH**

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Democratic consolidation in Sub-Saharan Africa: Can the variation be attributed to the level of corruption at early stages of democratization?

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## ABSTRACT

Despite the fact that almost all of the countries in Sub-Saharan Africa introduced multiparty elections during the 1990's and that the region has seen democratic progress over the years, only nine out of the regions forty-nine states were considered by Freedom House in 2011 to be free and democratic.

Using a multivariate logistic regression this paper adopts the preconditionist view of democratization theory and attempts to test and develop the argument that the variation in democratic consolidation in Sub-Saharan African countries can be attributed to levels of corruption at early stages of democratization.

The covariation between degrees of corruption and democratic consolidation is strong. Moreover, both the bivariate and the multivariate logistic regression conducted in the analysis, and other visualizations of the two models, gives us further reason to believe that the degrees of corruption at a certain time serve as an important precondition. There are, however, reasons to interpret the data with care due to lack of observations and significant relationships.

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## Introduction

In an article in *The Economist* late March 2012<sup>1</sup>, the author asks the question of which way African politics will go. Will it pursue the path of Senegal where the incumbent president in the latest election respected his country's democratic traditions and conceded electoral defeat to a younger rival, or will it go in the path of nearby Mali where the 2012 coup d'état abruptly ended a twenty-year long history of democracy?

The question is undeniably interesting because whilst there is only one African state today that does not hold general elections, Eritrea, only nine out of the regions forty-nine states are considered by Freedom House to be free and democratic. This is the case despite the fact that almost all of them introduced multiparty elections for the first time during the 1990's, that Sub-Saharan Africa has seen real democratic progress over the years and that today democracy is no longer only seen as an ideal but an achievable end goal. Yet, gradual erosion in the regions democratic standards has been observed by numerous sources. Using the articles examples, Freedom House reported a decrease in electoral democracies from 24 in 2005 to 19 in 2012 and the Mo Ibrahim index, an indicator quantitatively measuring good governance, revealed a five percent decline in electoral participation between 2007 and today. As such, democracies do not always survive. What can the variation in consolidation success be attributed to? Why is it that some countries have become democratically consolidated while some have not?

This paper presents two separate schools of democratization theorists, the "preconditionists" and the "universalists", and attempts to theoretically and empirically contribute to the preconditionist school of democratization theory by addressing the variation in democratic consolidation in Sub-Saharan African and attempts to develop and test the argument that the variation can be attributed to levels of corruption in early stages of democratization.

## Addressing the discourse on democratization theory

Whereas there in contemporary politics are very few that would argue against democracy as a superior form of governance, there is instead a debate on how democracies emerge and how they can develop and consolidate (Berman, 2007, Huntington, 1991).

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<sup>1</sup> <http://www.economist.com/node/21551494>, accessed 7 Nov. 12

Giving a historical review of the history of democratization in Western Europe, Sheri Berman argues that there are two different schools of democratization theorists, the “preconditionists” and the “universalists”, where the former argues that there has to be a particular set of conditions and experiences already in place for a democracy to emerge, whilst the latter argues that a democracy can come about in all sorts of ways and settings (Berman, 2007:28).

Both schools have had their periods of academic dominance. The preconditionists dominated the 1950’s and 1960’s, stressing the importance of national preconditions – the rule of law and a well-functioning state above all – and other already existing structural factors, such as socioeconomic equality and development as well as cultural traits and beliefs. Where certain arrangements of these preconditions existed a successful democratization process was likely, and where they were absent the same process would result unsuccessful (Berman, 2007).

Scholars such as Lipset, Przeworski, and Dahl contended that nations with a relatively high socioeconomic development would be more likely to sustain democracy (Osei, 2012) and others argued that democracy was contingent on the existence of certain social classes (e.g. Beckman, 1989). Furthermore, looking at newly elected leaders restricting rights and abusing their powers Zakaria (1997) alerted that rapid democratization produced “a plague of illiberal democracy” and violent conflict breaking out in newly democratizing regions led Mansfield and Snyder (1995) to argue that democratizing states are more prone to conflict than stable autocracies.

As such, it was argued that policy makers needed to take this into account and rethink their approach to democracy promotion (Carothers, 2007) and perhaps also accept the fact that in most of the world certain preconditions did not exist, and would make democratization hard, if not impossible (2007:28-29).

The universalists, however, believe that a consolidated democracy can emerge through a diverse number of paths and circumstances. They believe that the idea that certain prerequisites made democratization possible should be abandoned. The democratic resurgences beginning in the 1970’s, often characterized as the “third wave” of democratization, led to a strong tendency in favor of the universalist view (see Berman, 2007, Karl, 1990).

Scholars such as O’Donnell and Schmitter adopted this view and understands democratization as “a historical process with analytically distinct, if empirically overlapping, stages of transition, consolidation, persistence, and eventual deconsolidation” (O’Donnell & Schmitter, 1986). Indeed, Bratton

and de Walle showed that there was no correlation between economic development and democratization in Africa as both very poor and relatively wealthy countries underwent democratic change (Bratton & de Walle, 1997).

The overlapping dominance of each school has also had influence on foreign policy in separate times. Though, as Berman (2007) argues, the universalist view dominated most of the 90's and post-9/11 – believing that democracy can thrive in any place with what she calls “shock therapy” – the debates on the quality of democratic progress in Third World countries have further ignited the preconditionist view of democratization and the preconditionist view has been experiencing resurgence in recent years.

More recently, Carothers has argued that levels of economic development, if sources of national wealth are concentrated, if political pluralism has been historically experienced, if there are identity-based divisions and if a state is located in a nondemocratic “neighborhood” spurs democratic success or not (Carothers, 2007:24). Furthermore, Zakaria argues that democratic experiments implemented in countries with no history of political liberalism will inevitably run into problems (Zakaria, 1997) and Mansfield and Snyder (2005) have warned about “the dangers that can arise when democratic transitions do not follow a auspicious sequence” where “strong political institutions that make democracy work (effective state, rule of law and organized parties ... and professional news media” advance before the process of democratization (see also Berman, 2007:30).

Previous literature has thus addressed numerous other preconditions for democratic consolidation. What about levels of corruption as a precondition? The academic field is strikingly lacking information about the role of corruption as a precondition for democratic consolidation. Resting on the preconditionist assumptions above this paper will develop and test that the variation in democratic consolidation can be attributed to levels of corruption at early stages of democratization.

However, before entering into a discussion about consolidation and corruption – what does a democracy need to encompass before it can be considered as consolidated? The concept of democracy, whilst being an essential concept in comparative politics, is equally elusive and open for difficulties in conceptualization and measurement.

## **Democracy – more than formal mechanism and institutions**

Samuel Huntington argues that contemporary definitions of democracy can be divided into three separate families: those based on “the sources of authority for government”, “the purposes served by government”, or “the procedures for constituting the government” (Huntington, 1991:6). For this paper's purposes, the latter is of most relevance and it defines democracy as a political system where its most powerful decision makers are selected through fair, honest and periodic elections in which all the adult population are eligible to vote (Huntington, 1991:7). In this view democracy can be argued to be made out of two dimensions – contestation and participation (1991:7).

Przeworski, et al., (2000) also focus on contestation as the essential feature of democracy, as did most of the international community including major donors and organizations during the 90's and 00's (see Collier, 2009). This led to the wide spread of elections in both Africa and other regions of the world where the political landscape was undergoing change. As Collier correctly analyses elections were regarded not only as the most visible feature of democracy but rather its defining characteristics (2009:15).

However, this view of democracy could be regarded as a minimal form of institutional democracy where the free and fair electoral process defines the political system (as also argued by Huntington, 1991). Indeed, regardless of which terminology used and how concepts are defined it is a fact that far from all democratizing countries become democracies, and that all democratized countries remain democracies. What is it that determines democratic stability and consolidation?

## **Consolidation – an equally elusive concept with measurement problems**

Robert Dahl argued that party competition is necessary but insufficient (1971), outlining a claim that a proper democracy does not only need to have the mechanisms and characteristics of a democratic structure but that it must also have the rules of conduct for such a system (see also Collier, 2009). This is similarly argued by many other scholars, most notably Linz and Stepan (1996). According to them a consolidated democracy needs to exhibit more substantive features than the formal mechanisms and institutions. They define a consolidated democracy as:

“a political situation in which a strong majority of public opinion holds the belief that

democratic procedures and institutions are the most appropriate way to govern the collective life ... [and wherein] governmental and nongovernmental forces alike, throughout the territory of the state ... are subjected to, and habituated to, the resolution of conflict within the specific laws, procedures, and institutions sanctioned by the democratic process.” (1996:7)

Linz and Stepan continue their assertion by adding the prerequisite that in order to define democracy as consolidated there should also be acceptance of the functioning state by its own people showing that the substantive features of a democracy lie buried more deep within a society than just within the formal institutions (1996:7).

The difference between democratization and a consolidated democracy can thus, as Fernandez has argued, be that “while the democratization process *could* lead to a state with a democratic system, a consolidated democracy encompasses the understanding of the system and the formal and informal acceptance of its own citizens in regard to institutional, political and societal obedience to democratic rules and practices” (Fernandez, 2006:7).

Still, although establishing the substantive features of democracy, democratic consolidation is not an easy task. Diamond (1997) expresses this view quite clearly and shows that

“Democracy may be the most common form of government in the world, but outside of the wealthy industrialized nations it tends to be shallow, illiberal, and poorly institutionalized. If there are no immediate threats of democratic collapse in most of those countries, neither are there clear signs that democracy has been consolidated and stable, truly the only viable political system and method for the foreseeable future. In fact, most of the 70 new democracies that have come into being since the start of the third wave, only a small number are generally considered to be deeply rooted and secure. The remainder appear now ‘condemned’ to remain democratic while they muddle through as ‘unconsolidated democracies’.”

How has previous research addressed democratic consolidation? The most widespread conceptualization is that a democracy is “consolidated” when it is “likely to endure” and expected to “last well into the future” (Schedler, 2001, O’Donnell, 1996, Valenzuela, 1992). This “thin” conceptualization, however, creates operationalization difficulties as it resides on expectations on the future (Schedler, 2001:67). There have been three different approaches to this operationalization difficulty.

*The first assumption*, focusing on behavioral foundations of stability, is that it is the key political actors that sustain political institutions. Schedler writes that: “democracy is neither a divine gift nor a side effect of societal factors; it is the work of political actors” (2001:68). This is a somewhat similar assessment to what Linz and Stepan (1996) advocates – that a democracy has been consolidated when democratic processes and institutions become “the only game in town” (1996:5), and this only happens when actors decide to “play the game”. *The second assumption* outlines an attitudinal foundation of democratic governance where it is argued that democracy is always under risk unless all major political actors develop “normative motive, strategic rationality and cognitive perceptions” in order to sustain a regime of liberal democracy (Schedler, 2001:85). *Thirdly*, others draw attention to the socio-economic foundation of a democratic regime. Feeling “safe” in the consolidation only occurs when the socio-economic environment and its institutional settings look promising for the continuity of democracy (2001:85).

How are these modes of measurement ordered hierarchically looking at historical examples? Schedler, looking at examples from South America, argues that behavioral evidence overshadows both attitudinal and structural factors (2001:85). As such, whether a state becomes consolidated or not relies heavily on if the key political actors behave democratically or not, for instance if a key political figure steps down from office and if electoral results are respected.

Indeed, the perhaps most cited indicator of measuring democratic consolidation and its extent provided is the “one-turnover test” (Schedler, 2001:73). The test contends that democratic consolidation occurs when the willingness of accepting democracy comes from political actors accepting it not only as a way of gaining more power, but also where “parties lose elections” (see for instance Przeworski, et al., 1991:10). The acceptance of the test is not universal and several scholars have brought forth claims of its limitations and that it does not represent sufficient evidence of political commitment from electoral competitors. For instance, it is argued that the test misclassifies dominant party systems as well as presidential systems with “limited non-reelection rules” (Gunther et al, 1995, Huntington, 1991, Schedler, 2001). Yet, Schedler argues “the way political actors handle in-



stances of alteration in government constitutes an excellent indicator of their democratic commitment” (2001:73).

As this paper attempts to develop and test the argument that the variation in democratic consolidation can be attributed to levels of corruption at early stages of democratization, let us have a look at what corruption is and why it as a precondition could be detrimental to democratic consolidation.

### Corruption as a precondition for democratic consolidation

This paper sets out to investigate the role played by corruption as a precondition for democratic consolidation. Being one of the most widely researched areas of governance, corruption was defined by Van Roy already in 1970 as “the use of power for profit, preferment or prestige, for a benefit of one’s self, group or class in a way that constitutes a breach of law or of standards of high moral conduct” (Van Roy, 1970:86). The present conventional view of corruption is the *misuse of public power for private gain* (Treisman, 2007). This is also the definition used by both the World Bank (1997) and UNDP (1999).

Corruption is today a major governance issue (Szeftel, 1998) and takes place at many levels and in a wide range of scales. There is also a general agreement that a variation in institutional quality is perhaps the biggest source of cross-country differences in developmental patterns (Persson & Sjöstedt, 2010). Addressing such variations has become one of the lead policy issues in efforts to promote political reform and good governance (Szeftel, 1998). At the heart of these efforts are multilateral and bilateral donors attempting to reduce corruption in developing countries, with the focus on weak institutions that allow for illicit practices to flourish and become entrenched (Johnston, 2000).

A conclusion that can be drawn from the definition is that corruption involves both the abuse of public roles and resources allocated in the public sphere for private gains (Johnston, 2000). However, distinctions between “the public” and “the private” can be hard to draw and although establishing the occurrence of corrupt behavior very little is known about what causes corruption to be higher in one place than another (Treisman, 2000). Although Treisman maintains that one of the reasons for this is the difficulty of measuring levels of relative corruption in different countries (2000:400), it can also be because what can be determined as a corrupt action, whether a single act

or as a norm within a political system, varies between settings and analyses contingent upon the definition used and within the legal framework it appears (Rothstein & Teorell, 2005, Weitz, 2012).

In an attempt to address this, Andvig and Fjeldstad (2001) argue that corruption has either been seen as a structural problem within economics and politics or a problem of morality within cultures or individuals. It has come naturally for political science to focus on the institutional mechanisms and characteristics, the regime types and democracy in the study of corruption (Weitz, 2012:9).

### **Democracy and corruption – and the effect on democratic consolidation**

What has previous research found in regard to the effect of corruption on democratic consolidation? Democracy and corruption have long been treated as important factors in determining overall development. To date, the most persuasive evidence of both the harms and benefits of corruption are for economic development, and when studies have been made considering democracy and corruption together, corruption has nearly always been treated as the dependent variable.

Billger and Goel, (2009) sampled 99 countries from 2001-2003 and showed that democratic institutions reduce corruption; Montinola and Jackman (2002) sampled 66 countries from 1980-1983 and argue that democracy has to increase first, and then corruption will decrease. Additionally, Sung (2004) used the Corruption Perceptions Index for 103 countries from 1995-2000 and provided evidence that democracy gives rise to transitory upsurges of corruption.

A contradictory, but nevertheless important, theoretical view is that some levels of corruption can be beneficial for both economic growth and overall development (Huntington, 1968, Bardhan, 1997). This is because while government officials seek to collect bribes, they also give them incentives to work harder. As such, Huntington argues that a corrupt-free society might find some corrupt behavior welcome as “a lubricant easing the path to modernization” (1968:68). Needless to say, a general consensus is lacking.

What about the effect of corruption on democratic consolidation? Rose-Ackerman suggests that corruption harms both economic and political development, especially when considering its more long-term effects (1996) and Lawal argues that the effects of corruption can be felt in the political, social and economical sphere (2007). Hsueh contends that basic democratic principles are violated by corrupt behavior and it undermines the legitimacy of the democratic system in general and its

citizens trust in core institutions in particular (2007:8) Alleviating corruption is thus perhaps one of the most important questions for many states and governments if democratic, social and economical development shall be achieved. But why does corruption constitute such a problem and how does it impede democratic development? Is there an academic consensus regarding this?

Corruption is argued to be a threat to a number of democratic mechanisms, particularly the legitimacy of the political system, electoral participation and to institutions (Johnston, 2002).

Many scholars have used corruption perception data to show how corruption relates to trust and confidence in leaders and the political system. Della Porta showed that corruption is inversely related to government trust (2000); that citizens in corrupt states exhibit lower levels of trust in, and evaluations of, their political system was shown by Anderson and Tverdova (2003). Chang and Chu conclude their study by claiming that state institutions eventually become personal instruments for corrupt leaders after finding that political corruption has a strong trust-eroding effect that leads to both a mistrust in institutions, but also a loss of legitimization for the political system (2006).

Adverse consequences follow a regime that does not gain legitimacy from its own people. This is particularly important for democratizing or recently democratized states since legitimacy is essential for the success of both the authority of the new regime and the states institutional arrangements (Hsueh, 2007). Hsueh argues that there is probably no more common and profound obstacle for new democracies to consolidate than if holders of state power exhibit extensive corrupt behavior (2007:8). This is because when political authority and bureaucratic authority are “put out for rent” in a corrupt society, due process and civil liberties are endangered and the policies that are adopted and that soon will be implemented are generally considered to be a façade (2007:11). As such, corruption preempts competition at all levels and weakens institutions.

How does this come about? Why are institutions weakened? Klitgaard (1988) gives an explanation on how *corruption equals monopoly plus discretion, minus accountability*. The author analyzes bureaucratic corruption and means that it flourishes when officials have control over valuable goods or decisions (monopoly), whilst also having the power to decide on how to distribute them (discretion) without the need to answer for their actions (a lack of accountability) (1988:75). Widespread corruption repeats this process and thus undermines competitive participation on all levels of society and weakens official institutions while it at the same time builds up networks of corrupt behavior.

When corrupt networks have influence it usually benefits those who “have” rather than those who do not, and being a political opposition in such circumstances only means that you will not get a piece of the cake (Johnston, 2000), triggering further corrupt behavior. Although corruption also exist in full-fledged democracies, the “rules of the game” are already established with an underlying consensus on those rules (2000:14), meaning that corruption might still occur but do not threaten the democratic values and norms and the basic democratic character and its institutions.

Has contemporary literature addressed the most important issues in an extensive and sufficient way? Are there more scholarly challenges? Indeed, as contemporary research on corruption has increased the understanding on *why* and how *corruption* might be detrimental to the democratic process, focus has not necessarily been on democratic consolidation and how corruption impedes long-lasting democracy.

Thus, surprisingly, there is a gap in the literature. Johnston (2002) is actually one of the few who provide an overview of major themes in the work on corruption and democratization that offers an exploration of the connection between corruption, politics and markets in newly liberalizing countries. The author finds that the economic and political consolidation challenges require an interplay and attention to both institutions, meaning openness and autonomy of institutions, and participation, meaning the opportunities available for political and economical participation (2002:30).

Despite Johnston’s attempts, this theoretical section has revealed an empirical gap in the literature in regard to perceived levels of corruption and its effect on democratic consolidation. As such, let us have a look at the purpose of this paper and the contribution that can be made.

## **Addressing the inconclusiveness**

This paper has shown that corruption can be detrimental in it self and that it also can be argued to have long-lasting negative effects on democracy as a process. It has also shown that this increased knowledge of corruption has made corruption a priority among policy circles. This is in particular the case with Africa – the continent that is by far most plagued by corruption. It is also the continent with the most democratic setbacks and where the democratic traditions and institutions are shaky at best.

Furthermore, there are both theoretical and empirical needs to address the empirical gap and lack of systematic studies addressing whether successful state building, at least democratic consolidation, in Sub-Saharan Africa are contingent on the level of perceived corruption and the functioning of state institutions.

The purpose of this paper is thus to contribute to the preconditionist view of democratization theory and attempt to develop and test the argument which contends that *the variation in democratic consolidation in Sub-Saharan African countries can be attributed to levels of corruption at early stages of democratization*. It will more specifically examine:

- Do different degrees of corruption (at  $t_0 = 1996$ ) lead to different outcomes of democratic consolidation in Africa (at  $t+1 = 2011$ )?

## Data and Models

The data consists of seven variables measuring the effect of corruption on democratic consolidation, including control variables.

The data used in this paper comes from different sources: i) official data on elections derived from Internet sources, mainly the African Elections Database; ii) indicator of corruption from Transparency International's Corruption Perception Index (CPI); and iii) control variables from the Quality of Government data set, the Afrobarometer and the Standardized World Income Inequality Database (SWIID).

### The independent variable: Measure of corruption

Corruption can come in many types of definitions and be seen in many different forms. The definition of corruption will be limited to *misuse of public power for private gain* (Treisman, 2007), regarded as the most common practice by scholars in the corruption literature. With regard to the distinction between the “private” and the “public”, I leave private corruption aside and focus on the effects of public corruption. These types of corrupt behavior has more direct effects for the society as a whole and plagues society with problems of governance, political authority, legitimacy and democracy (Persson & Sjöstedt, 2010).

### **The dependent variable: Democratic consolidation**

In previous research, most notably Schedler (2001) but also O'Donnell (1996), there has been a critique of measures of degrees of democratic consolidation that are “confusing”, “inconsistent” or “empirically untraceable” (see O'Donnell, 1996). However, it is truly difficult to operationalize consolidation, or as Schedler puts it – “once we resolve the question of how to define democratic consolidation, we run into even more intricate problem of how to observe it” (Schedler, 2001:67).

Building on Schedler's argument that “the way political actors handle instances of alteration in government constitutes an excellent indicator of their democratic commitment” (2001:73), I will employ a method where three consecutive elections, free and fair (counting all national elections) and where the opponent accepts defeat, constitute an indication of democratic consolidation.

### **Control variables**

*GDP/capita* is added because it has been argued that it has effect on formal state institutions in at least two ways. Firstly, it gives a state more resources to expand their welfare system (Rothstein, et al, 2009) making the role of bureaucrats and state bureaucracy more important “giving room” for corrupt behavior. Secondly, an increased economical development leads to a demand in well functioning state institutions (La Porta, et al., 1999).

It has been contended in previous research that democracy is historically tied to the existence of certain classes, in particular a middle class (Moore, 1966, Osei, 2012). Additionally, Lipset has also argued of the importance of a broad middle class in democratization processes. This is because *economic equality* tends to be important for consolidation (Anderson, 2008). The Gini index is the most commonly used measure of inequality of income or wealth. However, the use of these Gini-coefficients are to be used with care in regard to both within- and cross-country comparisons since they rely on a variety of information sources and a diverse set of income and population concepts, sample sizes and statistical methods (Teorell, et al., 2012).

*Ethno-linguistic fractionalization* has been used in several studies such as Treisman (2000) and Mauro (1995), and is argued to be highly correlated with corruption. It has also been argued by Persson & Sjöstedt (2010) to negatively affect a large number of development outcomes, for instance quality of government, since bureaucrats in a more diverse ethno-linguistic society are more likely to favor people from their own ethnic group.

Finally, Uslaner and Rothstein have recently argued that there exists a causal mechanism between *universal education* and control of corruption (2012). Their results stress the importance of how a country's system of education historically matters greatly for contemporary levels of corruption. As such, higher levels of education should suppress the effect of corruption increasing the probability of democratic consolidation.

## **Models**

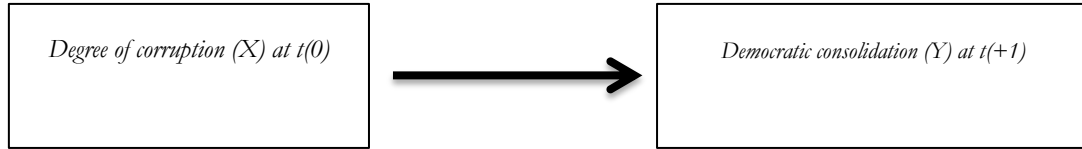
The objective of the analysis is to investigate the *general effects of corruption* on democratic consolidation. The purpose of a multiple regression analysis is to see the effect of several independent variables on the dependent variable. In order to conduct my analysis I will use democratic consolidation as the dependent variable in  $t(+1)$ , and use degree of corruption in  $(t_0)$  as the independent variable. By using this methodological approach, instead of a difference in the dependent variable between  $t(+1)$  and  $(t_0)$ , I enable the influence of corruption  $(t_0)$  on democratic consolidation  $t(+1)$  to vary.

The dependent variable, democratic consolidation, will in this paper be treated as a binary variable thus making it suitable using an ordered logistic regression analysis (Edling & Hedström, 2003:173) instead of, for example, an OLS-regression analysis. The regression analysis estimates the relationship between a dependent variable (which is categorical) and one or several independent variables (that usually are continuous) by converting the dependent variable to scores of probability (2003:178).

All analyses are conducted in SPSS.

The hypotheses in the focal relationship between the degree of corruption and democratic consolidation can be illustrated with the model below:

FIGURE 1: BIVARIATE MODEL OF ANALYSIS



*Figure comments: The figure shows the bivariate theoretical model in which the continuous variable, degree of corruption at  $t(0)$ , is the independent variable (X) and the binary variable democratic consolidation at  $t(+1)$  is the dependent variable.*

The hypotheses in the bivariate model is that (1) if the level of corruption is low, the probability of democratic consolidation will increase, and (2) if there are high levels of corruption the results will be the contrary – the probability of consolidation will decrease.

In the multivariate model it is the effect of the control variables on Y rather than on X that is of significance since I am interested in the variation in democratic consolidation. The assumed relationship in focus of the paper is, consequently, that there will be a change in Y, democratic consolidation, if there is a change in X, degree of corruption.



FIGURE 2: MULTIVARIATE MODEL OF ANALYSIS

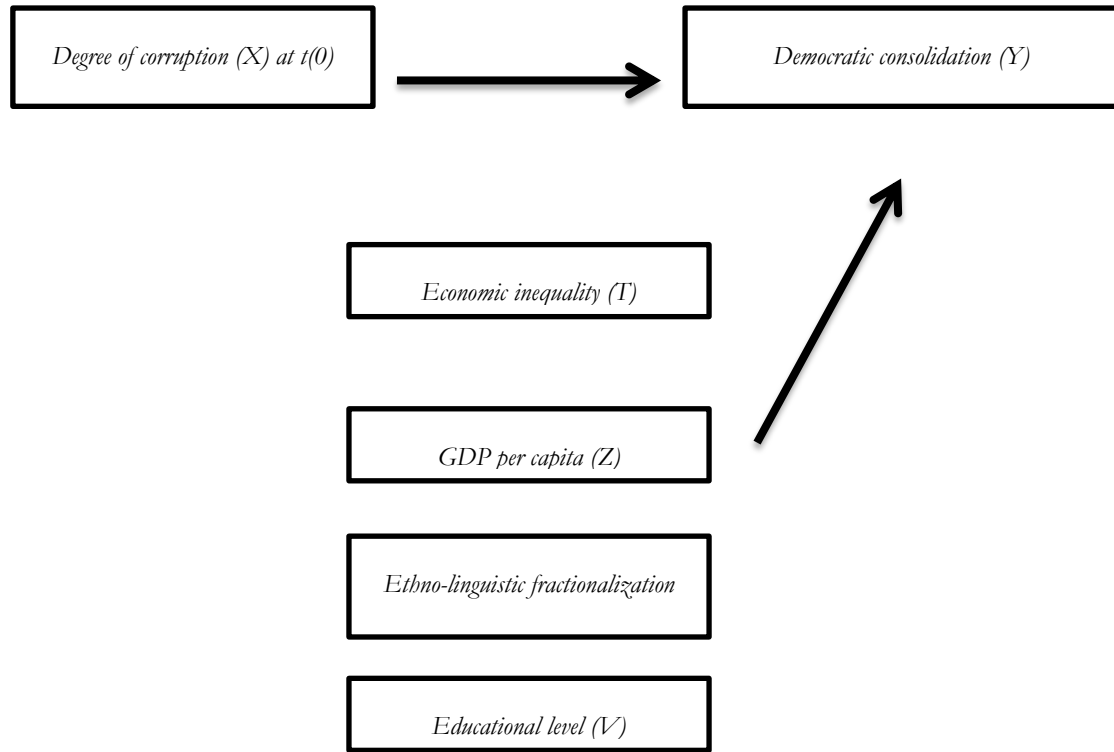


Figure comments: The figure shows the multivariate theoretical model in which the continuous variable, degree of corruption at  $t(0)$ , is the independent variable (X) and the binary variable democratic consolidation at  $t(+1)$  is the dependent variable. All control variables – GDP/capita (Z), economic inequality (T), ethno-linguistic fractionalization (U) and educational level (V) – are continuous.

As such, the hypothesis is that i) *less* economic inequality ii) *higher* GDP per capita; iii) *less* ethno-linguistic fractionalization and iv) *higher* educational levels will separately increase the probability of consolidation.

## Analysis

This section will be outlined as follows; first, I will present descriptive statistics on the focal relationship that will show, firstly, if there is a variation in the countries that can be considered consolidated between 1996 and 2011. Secondly, the level of perceived corruption in these countries will be

presented in the same manner stretching from 1996 to 2011. After the initial descriptive statistics, the first model will be tested in the regression analysis before controlling the entire theoretical model using the control variables.

### Descriptive analysis

How many countries in Sub-Saharan Africa were consolidated in 1996? Using the condition that at least three free and fair national elections should have been taken place before a country can be considered consolidated there were 6 consolidated democracies in 1996. These were Benin, Botswana, Cape Verde, Ghana, Mauritius and Senegal. The same number in 2011 is 9, consisting of Benin, Botswana, Cape Verde, Ghana, Mali, Mauritius, Namibia, Sao Tome and Principe and South Africa.

TABLE 1: CONSOLIDATION STATUS OF THE COUNTRIES IN SUB-SAHARAN AFRICA, 2011, FREQUENCY AND PERCENT.

Countries	Freq.	%
Not consolidated	40	81.63
Consolidated	9	18.37
Total	49	100.00

*Table comments: The table shows in frequencies and percent how many countries in Sub-Saharan Africa that can be considered consolidated in 2011. Three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation. Objective data on elections are collected from the African Elections Database.*

As such, there is a small increase in the number of consolidated democracies, as Mali, Namibia, Sao Tome and Principe and South Africa have been added to the group at the same time as Senegal has fallen out. As this is being written Mali should also fall out but seeing that this is data from 2011

they will remain in the data set as consolidated<sup>2</sup>. Nevertheless, the variation is very limited between the years, although existent.

What about the levels of corruption? Unfortunately the Corruptions Perceptions Index does not have ratings for all Sub-Saharan African countries at the same point in time. For some countries the first ratings are from 1996, but some are as late as 2005. The corruption levels vary between the countries from as low as 0.7 (Nigeria) up to 6.1 (Botswana) where higher levels indicate less corruption. The figure can be found in appendix.

\*\* Table 2 (see appendix) \*\*

TABLE 3: SUMMARY STATISTICS OF THE BIVARIATE MODEL

Variable	Obs.	Mean	Std. Dev.	Min	Max
<b>Consolidated, 2011</b>	49	.1836735	.3912304	0	1
<b>Corruption, 1996</b>	48	2.9125	1.071016	0.7	6.1

*Table comments: The table shows a summary of statistics of the two variables in the bivariate model. Democratic consolidation  $t(+1)$  is a binary variable (0-1) constructed where three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation (1), and where this has not taken place is not consolidated (0). Corruption ( $t0$ ) is a continuous variable that ranges from 0-10. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index.*

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<sup>2</sup> It should be said that it is unlucky that Senegal has fallen out although being an example in the introduction of this paper. The reason is simple, while being an electoral democracy and continuously being labeled as partly free by Freedom House since the 1970's the conditions to be considered a consolidated democracy was to not only have regular elections, but also that they should be free and fair and that the opponents should have accepted the electoral results. At the same time as the incumbent President won the election in 2007, due to a ruling from the constitutional court, major opposition parties boycotting the elections marked the parliamentary elections in the same year. This irregularity and instability further shows the variation in democratic consolidation in the Sub-Saharan countries.

Table 3 shows a summary of the two variables in the focal relationship. The difference in observations comes from South Sudan due to the country's independence in 2011. Let us also have a look at the multivariate model before conducting the bivariate analysis.

TABLE 4: SUMMARY STATISTICS FOR THE MULTIVARIATE MODEL

Variable	Obs.	Mean	Std. Dev.	Min	Max
<b>Consolidated, 2011</b>	49	.1836735	.3912304	0	1
<b>Corruption, 1996</b>	48	2.9125	1.071016	.7	6.1
<b>Economic inequality, 1996</b>	35	48.24698	9.110324	35.79996	73.2
<b>GDP/capita, 1996</b>	46	2240.715	3297.665	160.1593	15025.41
<b>Ethno-linguistic fr., 1996</b>	47	.6584292	.2304416	0	.930175
<b>Educational level, 1996</b>	48	3.067708	1.732066	.55	8.3

*Table comments: The table shows a summary of statistics of the six variables in the multivariate model. Democratic consolidation  $t(+1)$  is a binary variable (0-1) constructed where three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation (1), and where this has not taken place is not consolidated (0). Corruption ( $t0$ ) is a continuous variable that ranges from 0-10. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index.*

Looking at the summary statistics for the multivariate model, we can see that the variable for the Gini index, economic equality, has fewer observations than the other variables. In the multivariate model the implication is that the amount of missing observations will be 14, where 28 remaining countries in the model are "Not consolidated" and 7 are "Consolidated". This further decreases the amount of variation between these two variables.

### **Addressing the small N problem and the small variation in the dependent variable**

Seen from the descriptive statistics above, besides the small N of the Sub-Saharan African countries, the variation in the sample is quite small and the same countries that were consolidated in 1996 are more or less the same in 2011 (4 countries added, 1 removed). What implications will this have and can the statistical results be questioned?

When having nations as units of analysis, the small N problem arises as the number of available units is by itself limited. Goldthorpe (1997) argue that difficulties tend to be faced when applying techniques of multivariate analysis. This is because:

“Statistically, this means that there are too few degrees of freedom, that models become “over-determined”, that inter-correlations among independent variables cannot be adequately dealt with and that results may not be robust” (1997:4).

As such, competing explanations of the dependent variable cannot be properly evaluated (1997:4). How can this be dealt with and where does the problem lie?

According to Goldthorpe (1997), similarly argued by King, Keohane and Verba (1994:119), the small N problem is not a problem of methodology, but rather the *lack of data*. Consequently, the insufficient information available to answer the complex nature of the macro-level questions can only be addressed by increasing the information available for analysis. Because of this, and the small variation in my dependent variable, the interpretations made in both the bivariate and multivariate analysis needs to be careful.

### **Bivariate analysis**

In the bivariate analysis I investigate what effect the independent variable has on the dependent variable in the focal relationship. I use democratic consolidation at  $t(+1)$  which is 2011, and degree in corruption at  $(t_0)$  which is 1996. By doing this I allow the influence of corruption to vary. Since I use a logistic regression the outcome of democratic consolidation will be predicted contingent on

the levels of corruption, the outcome will thus be a score of probability. However first, let us look at a correlation matrix of the focal relationship.

TABLE 5: CORRELATION COEFFICIENTS OF THE BIVARIATE MODEL

Variable	Consolidation, 2011	Corruption, 1996
Consolidation, 2011	1.000	
Corruption, 1996	0.649	1.000

N = 48

*Table comments: The table shows correlation coefficients of the bivariate model. The correlation coefficient can range from -1 to +1, where -1 indicates a perfect negative correlation and +1 indicates a perfect positive correlation, and 0 indicating no correlation at all. Democratic consolidation  $t(+1)$  is a binary variable (0-1) constructed where three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation (1), and where this has not taken place is not consolidated (0). Corruption ( $t0$ ) is a continuous variable that ranges from 0-10. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index.*

The correlation of the bivariate model has 48 observations with missing values in both the independent variable (South Sudan). The correlation matrix reveals a positive relationship between the two variables in the focal relationship, meaning that if one score increases so does the other. Let us now have a look at the logistic regression.

How much does the probability of consolidation increase contingent on level of perceived corruption and how much has our model been able to predict the values correctly?

TABLE 6: LOGISTIC REGRESSION OF THE BIVARIATE MODEL, PREDICTED PROBABILITIES

Consolidation, 2011	B	Std. Err.	z	P> z	95% Conf. Interval	
<b>Corruption, 1996</b>	1.81	.573	3.16	0.002	.6859786	2.932883
<b>Constant</b>	-7.39	1.992	-3.71	0.000	-11.29902	-3.489887
<b>Log likelihood ratio</b>	13.460					
<b>Cox &amp; Snell R Square</b>	.333					
<b>Nagelkerke R Square</b>	.537					
<b>N</b>	48					

*Table comments: The table shows a logistic regression of the bivariate model. Democratic consolidation  $t(+1)$  is a binary variable (0-1) constructed where three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation (1), and where this has not taken place is not consolidated (0). Corruption ( $t0$ ) is a continuous variable that ranges from 0-10. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index.*

Looking at table 6, showing the bivariate model, the coefficient of corruption at 1996 is 1.81, meaning that if the corruption level increases by 1 the probability of democratic consolidation also increases by 1.81. The independent variable thus has a positive effect on the dependent variable indicating that an increase in the degree of corruption (meaning less corruption) also increases the probability of democratic consolidation.

Looking at the significance column we can be pretty sure that the effect is not caused by coincidental variation in the data. Observing the Pseudo R<sup>2</sup>-values, the “Cox & Snell R Square” and the “Nagelkerke R Square” show values of .333 and .537 respectively. Whilst these are measures adapted for logistic regressions to serve the same function as R<sup>2</sup> in a linear regression, they cannot be interpreted as the amount of explained variance (Cox & Snell, 1989). However, higher values indicate that the independent variables are better at predicting the dependent variable. This indicator will be of more relevance in the multivariate model when we can see how the model develops when entering more variables.

The positive relationship is further visualized by looking at the classification table below (Table 7), where we can see that the bivariate model correctly estimated 37 of 39 of the countries that are not consolidated 2011 (94,9%), but only 5 out of 9 that are consolidated (55,6%). This could perhaps

be attributed to the very little variation in these countries between 1996 and 2011. Nonetheless, the model gives us a correct estimation of 87,5%, indicating a strong estimation model.

TABLE 7: CLASSIFICATION TABLE – PREDICTED ESTIMATIONS, FREQUENCIES AND PERCENT

Consolidated, 2011	Consolidated, 2011		
	0	1	Correct %
0	37	2	94,90%
1	4	5	55,60%
Overall percentage			87,50%

*Table comments: The table shows a classification table of predicted values for the bivariate model. Democratic consolidation  $t(+1)$  is a binary variable (0-1) constructed where three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation (1), and where this has not taken place is not consolidated (0). Corruption ( $t0$ ) is a continuous variable that ranges from 0-10. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index.*

We have now come quite far in our research question addressing the degree of corruption as a pre-condition for democratic consolidation. It can now be contended that the higher degrees of corruption a country has ( $t0$ ), the more probable it is that it will be consolidated at  $t(+1)$ . But how large is the effect?

Since this is a nonlinear model there is a need to take the values of all covariates into account to understand what is going on in the model. The table below (table 8) shows a table where the derivative of the mean expected outcome has been calculated with respect to the specified variable, in this case corruption levels at 1996.



TABLE 8: LOGISTIC REGRESSION, CALCULATED MARGINS OF THE BIVARIATE MODEL

Delta-method						
At	Margin	Std. Error	z	P> z	95% Conf. Interval	
1	.0006143	.001223	0.50	0.615	-.0017827	.0030113
2	.0037396	.0053852	0.69	0.487	-.0068152	.0142944
3	.0224098	.0203992	1.10	0.272	-.0175718	.0623914
4	.1228016	.059185	2.07	0.038	.0068012	.2388021
5	.4608971	.1559287	2.96	0.003	.1552824	.7665117
6	.8392555	.1442226	5.82	0.000	.5565845	1.121927
7	.9695908	.0470744	20.60	0.000	.8773267	1.061855
8	.9948907	.010917	91.13	0.000	.9734937	1.016288
9	.9991598	.0022734	439.51	0.000	.9947041	1.003615
10	.9998623	.0004505	2219.32	0.000	.9989793	1.000745
11	.9999775	.0000866	1.2e+04	0.000	.9998078	1.000147

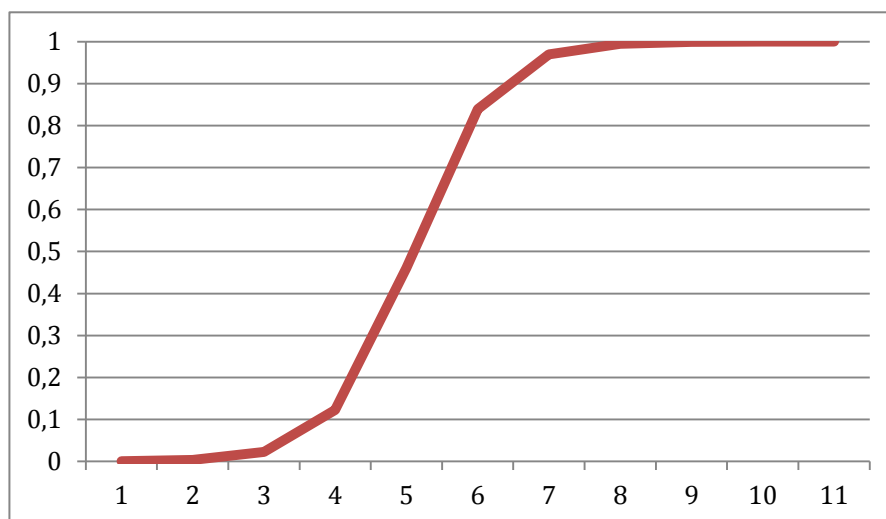
N = 48

*Table comments: The table shows adjusted predictions for the bivariate model. Democratic consolidation  $t(+1)$  is a binary variable (0-1) constructed where three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation (1), and where this has not taken place is not consolidated (0). Corruption ( $t0$ ) is a continuous variable that ranges from 0-10. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index.*

Table 8 shows adjusted predictions for the bivariate model where the independent variable (degree of corruption at 1996) ranges from 1-11 on the Y-axis (0-10 in the data) and where higher scores indicate less corruption. The dependent variable ranges from 0-1 where 1 indicates consolidation. The table shows that a score of 1 on the corruption scale shows a margin result of .0006143, which gives a margin score of probability of 0.006% of consolidating into a democracy. A score in the middle, scoring a 6, shows a margin score of .8392555 that gives an 83,9% consolidation probability. As such, the probability of consolidation steadily increases contingent on the degree of corruption.

To visualize the effect of the independent variable further we can use a graph illustrating the bivariate model:

FIGURE 3: GRAPH OF THE BIVARIATE MODEL, PREDICTED PROBABILITIES



*Figure comments: The graph illustrates the predicted probabilities of the bivariate model. 48 observations. The Y-axis shows probabilities of democratic consolidation at 2011 which ranges between 0-1 (Not consolidated-Consolidated) and where the X-axis shows degrees of corruption ranging between 0-10 (1-11 in the graph).*

Because of the binary dependent variable the graph can never go under 0 and above 1, and as expected, we are seeing a graph that shows a positive relationship between the independent and dependent variable. We can also see that the graph shows a curve, which is logical seeing as the logistic regression estimates probabilities. The graph again further visualizes that higher degrees of corruption increases the probability of democratic consolidation.

The bivariate logistic regression, and other visualizations of the bivariate model, has given us further reason to believe that the degrees of corruption at a certain time serve as an important precondition for the probability of a country to democratically consolidate at a later stage in time. Will the effect sustain when we control for spuriousness in the multivariate model?

### **Multivariate analysis**

The hypothesis in the multivariate model is that i) less economic inequality ii) *higher* GDP per capita; iii) *less* ethno-linguistic fractionalization and iv) *higher* educational levels will separately increase the probability of consolidation. Let us first have a look at the correlation matrix for the multivariate model on the next page (table 9).

TABLE 9: CORRELATION COEFFICIENTS OF THE MULTIVARIATE MODEL

Variable	Consolidated, 2011	Corruption, 1996	Economic inequality, 1996	GDP/capita , 1996	Ethno- linguistic fr., 1996	Educational level, 1996
<b>Consolidated, 2011</b>	1.0000					
<b>Corruption, 1996</b>	0.7383*	1.0000				
<b>Economic inequality, 1996</b>	0.1513	0.3082	1.0000			
<b>GDP/capita, 1996</b>	0.3784	0.4593*	0.0556	1.0000		
<b>Ethno-linguistic fr., 1996</b>	-0.2100	-0.3028*	-0.1994	-0.0951	1.0000	
<b>Educational level, 1996</b>	0.3695	0.4215*	0.3765*	0.5034*	-0.2490*	1.0000

*Table comments: The table shows correlation coefficients for the multivariate model. Levels of significance: \* $p < 0,05$ . The correlation coefficient can range from -1 to +1, where -1 indicates a perfect negative correlation and +1 indicates a perfect positive correlation, and 0 indicating no correlation at all. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index. Economic inequality is a Gini index from the Standardized World Income Database (SWIID), GDP/capita is data from the World Bank and OECD found in the Quality of Government data set, ethno-linguistic fractionalization is from Alesina et al., 2003, found in the Quality of Government data set and educational level is from the Institute for Health Metrics and Evaluation at the University of Washington, also found in the Quality of Government data set.*

As we saw from the summary of statistics for the multivariate model, the amount of observations decreases due to the Gini index only having 35 observations. Used in the multivariate correlation were thus 35 observations with missing values due to the lack of observations.

The correlation matrix in table 9 reveals an increased positive relationship between the two variables in the focal relationship. When controlling for the other variables the relationship between degree of corruption at 1996 and democratic consolidation is at 0.7382, which can be considered great. The correlation is also significant at the .05-level.

Regarding the other variables in the multivariate model, GDP/capita and Educational level at 1996 can be considered weak with correlation coefficients at 0.3784 and 0.3695 respectively. The correlation of democratic consolidation and economic inequality at 1996 is not really meaningful with the coefficient at 0.1513, at the same time as ethno-linguistic fractionalization shows a very weak negative correlation to democratic consolidation with the coefficient at -0.2100.

Let us have a look at the multivariate logistic regression to understand the probability of democratic consolidation for the entire multivariate model. What the multivariate logistic regression does is that the coefficients estimate the extent of each outcome relationship after it has adjusted for all other predictors in the model.

TABLE 10: LOGISTIC REGRESSION OF THE MULTIVARIATE MODEL

Consolidation, 2011	B	Std. Err.	z	P> z	95% Conf. Interval	
Corruption, 1996	2.758	1.159714	2.38	0.017	.4849989	5.030995
Economic inequality, 1996	-.0897516	.1004881	-0.89	0.372	-.2867046	.1072014
GDP/capita, 1996	-.0000618	.0003469	-0.18	0.859	-.0007417	.0006181
Ethno-linguistic fr., 1996	-.7687141	4.524594	-0.17	0.865	-9.636756	8.099328
Educational level, 1996	.1701557	.5609806	0.30	0.762	-.9293462	1.269658
Constant	-6.620524	5.857661	-1.13	0.258	-18.10133	4.860281
Log likelihood ratio	-6.8225791					
Cox & Snell R Square	.457					
Nagelkerke R Square	.723					
N	35					

*Table comments: The table shows a logistic regression of the multivariate model. Democratic consolidation  $t(+1)$  is a binary variable (0-1) constructed where three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation (1), and where this has not taken place is not consolidated (0). Corruption ( $t0$ ) is a continuous variable that ranges from 0-10. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index. Economic inequality is a Gini index from the Standardized World Income Database (SWIID), GDP/capita is data from the World Bank and OECD found in the Quality of Government data set, ethno-linguistic fractionalization is from Alesina et al., 2003, found in the Quality of Government data set and educational level is from the Institute for Health Metrics and Evaluation at the University of Washington, also found in the Quality of Government data set.*

In controlling for other possible explanation in the multivariate model, we see in the table above (table 10) that the only statistically significant variable was degree of corruption in 1996 (.017). No other variables are statistically significant which is remarkable. Whilst there is a small N it is notable that GDP/capita and ethno-linguistic fractionalization is not significant. Seemingly corruption trumps all other variables.

The coefficient of corruption at 1996 increases from about 1.81 to about 2.76, meaning that for one units increase in corruption at ( $t_0$ ), we can expect a 2.76 increase in the ordered log odds being at a higher level of democratic consolidation in 2011. This is given that all other variables in the model are held constant.

Seeing the Pseudo R<sup>2</sup>-values for the multivariate model, not to be interpreted as the amount of explained variance (Cox & Snell, 1989), the “Cox & Snell R Square” and the “Nagelkerke R Square” show values of .457 and .723 respectively. In comparison to the bivariate model these values have increased indicating a better prediction of the dependent variable.

By looking at the classification table below (Table 11), we can see that the multivariate model correctly estimated 100% of the countries that are not consolidated in 2011 and 5 out of 7 that are consolidated (71,4%). The multivariate model thus correctly estimated 94,3% of the observed countries (35 observations).

TABLE 11: CLASSIFICATION TABLE – PREDICTED ESTIMATIONS, FREQUENCIES AND PER-CENT

Consolidated, 2011	Consolidated, 2011		Correct %
	0	1	
0	28	0	100,00%
1	2	5	71,40%
Overall percentage			94,30%

*Table comments: The table shows a classification table of predicted values for the multivariate model. Democratic consolidation  $t(+1)$  is a binary variable (0-1) constructed where three consecutive free and fair elections, where the opponent accepted the electoral results, constitute democratic consolidation (1), and where this has not taken place is not consolidated (0). Corruption ( $t_0$ ) is a continuous variable that ranges from 0-10. The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index. Economic inequality is a Gini index from the Standardized World Income Database (SWIID), GDP/capita is data from the World Bank and OECD found in the Quality of Government data set, ethno-linguistic fractionalization is from Alesina et al., 2003, found in the Quality of Government data set and educational level is from the Institute for Health Metrics and Evaluation at the University of Washington, also found in the Quality of Government data set.*

Since this, like the bivariate model, is a nonlinear model the values of all covariates are needed to be taken into account to understand what is going on in the model. The table below shows a table of the multivariate model where the derivative of the mean expected outcome has been calculated with respect to the specified variable, in this case corruption levels at 1996.

Similar to the bivariate model above (table 8), table 12 shows adjusted predictions for the multivariate model where the independent variable (degree of corruption at 1996) ranges from 1-11 on the Y-axis (0-10 in the data) and where higher scores indicate less corruption. When controlling for the other variables, the probability of consolidation has decreased when scoring low on the corruption scale (higher corruption) whilst it has increased when scoring high. As such, a score of 1 on the corruption scale gives a margin score of 0.001% of consolidating into a democracy, whilst a score in the middle, scoring a 6, shows a margin score of .9379997, indicating a probability of 93,7% of democratic consolidation.

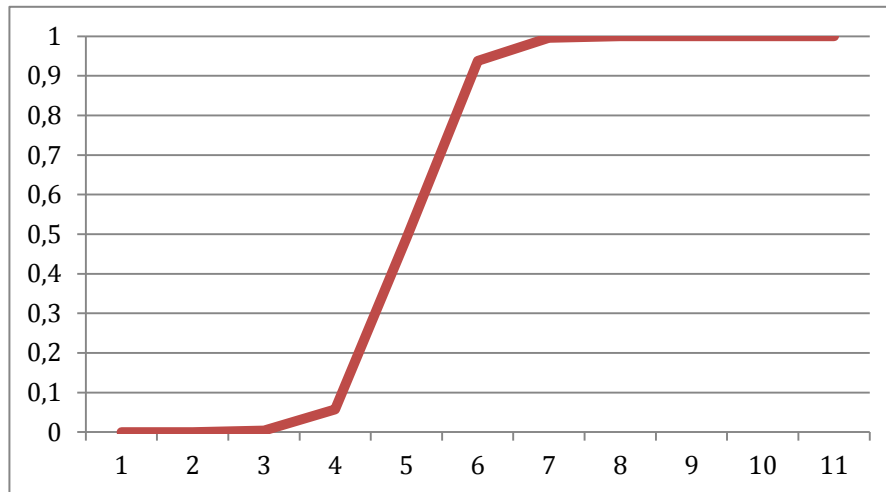
TABLE 12: LOGISTIC REGRESSION, CALCULATED MARGINS OF THE MULTIVARIATE MODEL

Delta-method						
At	Margin	Std. Error	z	P> z	95% Conf. Interval	
1	.0000155	.0000655	0.24	0.813	-.0001128	.0001438
2	.0002447	.0007547	0.32	0.746	-.0012346	.0017239
3	.003844	.0075966	0.51	0.613	-.0110451	.0187332
4	.0573575	.0551451	1.04	0.298	-.0507249	.1654399
5	.4896548	.2283161	2.14	0.032	.0421634	.9371461
6	.9379997	.1059523	8.85	0.000	.7303371	1.145662
7	.9958256	.0121148	82.20	0.000	.9720811	1.01957
8	.9997342	.0010746	930.32	0.000	.997628	1.00184
9	.9999831	.0000875	1.1e+04	0.000	.9998117	1.000155
10	.9999989	6.78e-06	1.5e+05	0.000	.9999856	1.000012
11	.9999999	5.28e-07	1.9e+06	0.000	.9999989	1.000001

*Table comments: The data on elections are collected from the African Elections Database, and data on corruption is used from Transparency International's Corruptions Perceptions Index. Economic inequality is a Gini index from the Standardized World Income Database (SWIID), GDP/capita is data from the World Bank and OECD found in the Quality of Government data set, ethno-linguistic fractionalization is from Alesina et al., 2003, found in the Quality of Government data set and educational level is from the Institute for Health Metrics and Evaluation at the University of Washington, also found in the Quality of Government data set.*

Again, the effects can be visualized further by using a graph depicting the multivariate model.

FIGURE 4: GRAPH OF THE MULTIVARIATE MODEL, PREDICTED PROBABILITIES



*Table comments: The graph illustrates the predicted probabilities of the multivariate model. 35 observations. The Y-axis shows probabilities of democratic consolidation at 2011 which ranges between 0-1 (Not consolidated-Consolidated) and where the X-axis shows degrees of corruption ranging between 0-10 (1-11 in the graph).*

Comparable to the bivariate model, the graph depicting the multivariate model again further visualizes a strong positive relationship and that higher degrees of corruption increase the probability of democratic consolidation at a later stage in time.

The multivariate model has, like the bivariate model, visualized the strong covariation between the degree of corruption and democratic consolidation at a later time. The effect in the multivariate model increased from 1.81 in the bivariate model to about 2.76 indicating a robust positive relationship. It was also the only significant relationship in the multivariate model. Yet, due to the small N-problem in the multivariate model the robustness of the findings should be handled with care.

## Reiteration and conclusions

The purpose of this paper was to contribute to the preconditionist view of democratization theory and attempt to develop and test the argument that the variation in democratic consolidation in Sub-Saharan African countries could be attributed to levels of corruption at early stages of democratization.

In an attempt to accomplish this, I have conducted a multiple regression analysis to enable the influence of corruption on democratic consolidation to vary whilst at the same time controlling for other factors that may affect democratic consolidation. Since my dependent variable is binary, I have used a logistic regression with continuous independent variables to test both my bivariate and multivariate theoretical models.

Both the bivariate and the multivariate logistic regression conducted in the analysis, and other visualizations of the two models, has given us further reason to believe that the degrees of corruption at a certain time serve as an important precondition for the probability of a country to democratically consolidate at a later stage in time. Hence, it can be contended that higher degrees of corruption at  $t(0)$ , meaning less corruption, increase the probability that a country will be consolidated at  $t(+1)$ . In terms of the effect, we can also assert that if the corruption level in the bivariate model increased by 1 the probability of democratic consolidation also increases by 1.81. The effect in the multivariate model increased from 1.81 to about 2.76 indicating a robust positive relationship. It was also the only significant relationship in the multivariate model.

However, whilst the covariation between degrees of corruption and democratic consolidation seems to be strong there are certain obstacle that constitute reasons to regard the findings with some care and to pose further ideas in order to develop this study.

The small N problem appears both in regard to the number of units in the analysis and the insufficient data available to answer the questions at hand. Hence, both the reliability and the validity of the data and the regression analysis are not foolproof. This is because not all variables had data available for the year 1996. I have tried to overcome this by collecting data as close to 1996 as possible. Moreover, using the Gini index of economic inequality the amount of observations in the logistic regression decreased from 48 to 35 making the robustness of the analysis weaker. As such, the data is hard to interpret correctly.



Considering the methodology, a time-series analysis would have been interesting to conduct in order to see consolidation trends across the continent. However, as argued previously, the problem with implementing a time-series comes from the data available to measure levels of corruption. As such, what we see are images of the perceptions of corruption at that specific time, and consequently, whilst we might be successful in accounting for parts of the variation, we cannot really tell what is going on between 1996 and 2011 in terms of social processes and actions.

With these obstacles the implication is that the results can be argued not to be robust. How can this be overcome? Goldthorpe (1997) argues that the solution might be easy to state, but in reality a bit harder to accomplish: “simply to increase the information that we have available for analysis” (1997:6).

Increasing the data can be done in several ways. One way is to employ a case-oriented approach on successful and unsuccessful cases and look closer at different mechanisms separately and how they operate in those cases. Another way is to exploit more exhaustively the cases that already have good data sources. What is truly essential however, for both variable- and case-oriented approaches, is to increase the units available for analysis and to also further their geographical and socioeconomic range, as well as the range of time, in order to achieve greater variation and quality of data. This is particularly essential for countries such as those in Sub-Saharan Africa where the quality and availability of data is lacking.

Yet, regardless of findings and obstacles along the way, this paper contributes to the preconditionist school of democratization theory and a broadened comprehension in the potentially detrimental effects of corruption on democracy and democratic consolidation. Whilst no causality has been found, I have at least found a correlation that should be explored more in detail.

Why is further research important? Analyzing corruption in a country gives us an understanding of its nature and helps us understand its deeper developmental and consolidation effects. Thus, one aspect is that it gives us more knowledge about the nature of corruption and potentially – how to combat it. Another aspect is that it gives us knowledge of the preconditions for democratic governance and how to increase the acceptance and legitimacy for such processes. This is also crucial for outside actors such as policy circles, development agencies and organizations.

An example of such a process is within international development cooperation. A big part of the promotion of democratic governance is preventing and combating corruption. Indeed, both the

Paris declaration in 2005, the Accra Agenda for Action 2008, and the Busan Outcome Document (from the 4<sup>th</sup> High Level Forum on Aid Effectiveness in Busan, Korea, 2011) set an agenda towards a further focus on achieving results, greater transparency, ownership and increased accountability for improving aid effectiveness. In such processes, the knowledge of corruption as a precondition could be essential for successful program implementations.

Finally, whilst preconditions such as corruption make it hard for new, young and vulnerable democracies to consolidate an increased knowledge of its existence and pervasiveness should not make us feel discouraged. Instead, further research has to be conducted using different approaches and methodologies. Only then can we understand, cope with and alleviate the impact of harmful preconditions.

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# APPENDIX

TABLE 2: CORRUPTION LEVELS AT 1996

Country	Corruption level, 1996
Angola	1.7
Benin	3.2
Botswana	6.1
Burkina Faso	3.0
Burundi	2.3
Cameroon	2.4
Cape Verde	4.9
Central Afr. Rep.	2.4
Chad	1.7
Comoros	2.6
Congo, Rep. of	2.2
Congo, Dem. Rep. of	2.0
Ivory Coast	3.1
Djibouti	2.9
Equatorial Guinea	1.9
Eritrea	2.6
Ethiopia	3.2



<b>Gabon</b>	2.9
<b>Gambia</b>	2.5
<b>Ghana</b>	3.3
<b>Guinea</b>	1.9
<b>Guinea-Bissau</b>	2.2
<b>Kenya</b>	2.5
<b>Lesotho</b>	3.4
<b>Liberia</b>	2.2
<b>Madagascar</b>	2.6
<b>Malawi</b>	4.1
<b>Mali</b>	3.0
<b>Mauritania</b>	3.1
<b>Mauritius</b>	5.0
<b>Mozambique</b>	3.5
<b>Namibia</b>	5.3
<b>Niger</b>	2.2
<b>Nigeria</b>	.7
<b>Rwanda</b>	2.5
<b>Sao Tome &amp; Principe</b>	2.7
<b>Senegal</b>	3.3
<b>Seychelles</b>	4.4

<b>Sierra Leone</b>	2.2
<b>Somalia</b>	2.1
<b>South Africa</b>	5.6
<b>South Sudan</b>	NA
<b>Sudan</b>	2.3
<b>Swaziland</b>	2.7
<b>Tanzania</b>	1.9
<b>Togo</b>	2.4
<b>Uganda</b>	2.7
<b>Zambia</b>	3.5
<b>Zimbabwe</b>	2.9